

REMARKS

Claims 1 – 25 were pending in the present application. Claims 1 and 9 have been amended. Claims 1 – 25 remain pending in the present application.

Claims 1 – 25 are rejected under 35 U.S.C. 103(a) as being anticipated by Frey et al. (U.S. Patent Number 6,029,168, hereinafter ‘Frey’) in view of Mukherjee (U.S. Patent Number 6,466,978, hereinafter ‘Mukherjee’). Applicant respectfully traverses this rejection.

Frey discloses an apparatus and process wherein data files are distributed across a large scale data processing system. (Abstract) Specifically, Frey discloses a unique file ID for each file which is placed in a “well-known” distributed directory file. The file ID may then be used to retrieve starter and starter information on any of a plurality of data nodes on which the file is stored. (col. 6, lines 53 – 61) Each data node includes a data storage system and a file access manager. Each data storage system includes one or more physical storage devices, and each file access manager includes starter information and non-starter information. Starter information describes how data is to be spread over a node. Non-starter information includes the mapping of file blocks to be stored on the same node to specific disk addresses. (col. 4, line 64 – col. 5, line 19)

Applicant can find no teaching or suggestion in Frey of “retaining the first data structure **in the first storage environment** to interface with one or more of the physical locations of the data object from the first storage environment,” as recited in Applicant’s amended claim 1. In contrast, Frey instead teaches a mapping of file blocks to specific disk addresses *stored on the same node*.

In addition, Mukherjee teaches a distributed server file system wherein each disk is assigned a dedicated disk manager that provides admission control and other server-related tasks for that disk. The disk manager is essentially a network node that maintains the available bandwidth of the associated disk, metadata information, and read/write

locks that reside on the associated disk. Disk manager mirrors for each of the disk managers provide fault tolerance for the file system. (col. 9, line 65 – col. 10, line 11) During the course of a file operation, the disk manager updates bandwidth records to reflect the change to available bandwidth. Afterwards, the control information in the disk manager mirror is updated. (Col. 10, lines 31 – 64)

Applicant can find no teaching or suggestion in Mukherjee of “updating the first data structure **when changes occur to the data object in the second storage environment**,” as recited in Applicant’s amended claim 1. In contrast, Mukherjee teaches modifying bandwidth records in distributed disk manager mirrors during file operations.

Applicant furthermore respectfully disagrees with the Examiner’s assertion that it would have been obvious to modify the teachings of Frey with the teachings of Mukherjee “in order to maintain system consistency and accuracy especially when subsequent requests are received.” Frey specifically teaches that “the present invention provides a distribution of entries, such as fields and indexes or any commands that are used to describe and work with data, **without replication of the entries**.” (Col. 2, lines 47 – 50) Accordingly, Frey would appear to teach away from a system that employs disk manager mirrors as disclosed by Mukherjee.

Accordingly, claim 1 is believed to patentably distinguish over Frey and Mukherjee. Claims 2 – 8 are dependent upon claim 1, and are thus believed to patentably distinguish over Frey and Mukherjee for at least the above reasons.

Likewise, claims 9, 15, and 21 recite limitations similar to claim 1, and are thus also believed to be patentably distinguishable over Frey and Mukherjee, along with their respective dependent claims, for at least the above reasons.

In light of the reasons given above, further traversal of the Examiner’s comments concerning the dependent claims is believed unnecessary at this time.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5760-16700/BNK.

Respectfully submitted,



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